Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1) Which material would you think is best to conserve heat?

2) Assign each group member to a material. Each member will be responsible for that material’s temperature data using the thermometer and the Fahrenheit unit. As a class you will start and stop at the same time. When you stop quickly look at the thermometer and record the data. As you wait for time, complete the other questions on this worksheet.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Materials | Starting Temperature  (◦F) | Temperature after 5 minutes (◦F) | Temperature after 10 minutes (◦F) | Change in temperature (start time to 10 min) |
| Control |  |  |  |  |
| Aluminum Foil |  |  |  |  |
| Newspaper |  |  |  |  |
| Plastic |  |  |  |  |

3) How are you going to calculate the change in temperature? Using your data, what is the average change in temperature for every minute? What should be its unit? What mathematical concept does this remind you of?

4) How will you determine which material is best for conserving heat?

5) Graph your data on a coordinate plane. Using the idea of slope. Determine which material is best for conserving heat.

6) Was your hypothesis correct? What do you think might be possible reasons to the result that you got?

